

Appl. No. : 10/824,798
Filed : April 15, 2004

REMARKS

The specification has been amended to correct clerical errors and also to add reference numerals inserted in Figs. 4 and 9. Figs. 4 and 9 have been amended to insert the reference numerals. The claims have been amended to clarify the invention. No new matter has been added. Applicant respectfully requests entry of the amendments and reconsideration of the application in view of the amendments and the following remarks.

Drawing Objections

Drawings has been objected to because the “gas-distribution head”, “head surface”, “first plate”, “second plate”, “connectors”, “first bores”, “second bores”, and “third bores” are recited in the claims but not shown in the drawings.

The specification has been amended to indicate these terms with reference to the drawings. Also, the drawings (Figs. 4 and 9) have been amended to add reference numerals. No new matter has been added. Thus, Applicant respectfully requests withdrawal of this objection.

Claim Objections

Claim 18 has been objected to because that claim does not further limit the subject matter of a previous claim. Claim 18 has been amended to further limit the subject matter of the previous claim, thereby obviating this objection.

Rejection Under 35 U.S.C. § 112, first paragraph

Claims 30-40 have been rejected under 35 U.S.C. § 112, first paragraph. The Examiner asserts that “first bores”, “second bores”, and “third bores” are nowhere discussed in the specification.

The specification has been amended to indicate these terms with reference to the drawings. Also, the drawings (Figs. 4 and 9) have been amended to add reference numerals. No new matter has been added. Thus, these claims comply with the enablement requirement, and Applicant respectfully requests withdrawal of this rejection.

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Claim 16 has been rejected under 35 U.S.C. § 112, first paragraph, with respect to the term “PR power”. The term is a clerical error and should be “RF power”. Claim 16 has been amended, thereby obviating this rejection.

Rejection Under 35 U.S.C. § 112, second paragraph

Claims 1-20 and 30-40 have been rejected under 35 U.S.C. § 112, second paragraph, with respect to “isolated” in claim 1, “without being communicated with each other” in claim 6, “head surface” in claims 1-20 and 30-40, and other terms having insufficient antecedent bases in claims 4, 20, 11, and 40.

Claims 1 and 6 have been amended to clarify that the terms are understood with respect to gas mixing. Further, the term “head surface” has been clarified in the specification and the drawings, and the other terms having insufficient antecedent bases have been amended. Applicant respectfully requests withdrawal of this rejection.

Rejection Under 35 U.S.C. § 102

Claims 1-4, 6, 7, 9-11, 17-19, 30, 32-37, and 40 have been rejected under 35 U.S.C. § 102(b) as being anticipated by Okase. Applicant respectfully traverses this rejection. Claims 1 and 30 are independent.

The Examiner asserts: “[Okase discloses] a first section (9a-c; Figure 9; column 17, line 55-column 18, line 41) for discharging a gas through the head surface” and “a second section (85a; Figure 9; column 17, lines 55-column 18, line 41) for discharging a gas through the head surface.”

However, in Okase, the gas in the second section (85a) is not capable of passing through the head surface (9). In Claims 1 and 30, each gas not only in the first section but also in the second section passes through the head surface. Thus, the claimed structures are clearly distinct from Okase’s structure. Thus, claims 1 and 30 and the dependent claims could not be anticipated by Okase. Applicant respectfully requests withdrawal of this rejection.

Rejection Under 35 U.S.C. § 103

Claims 5, 8, 12, 13, 20, 31, 38, and 39 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over Okase in view of Hills. However, Hills does not teach the above discussed

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features recited in claim 1 and 30. In the claimed invention, because two separate sections are established where reaction gas and purge gas can alternately be introduced in each section, atomic layer deposition can effectively be accomplished. A combination of Okase and Hills could not lead to this feature. Thus, a combination of Okase and Hills could not render claims 1 and 30 obvious, and at least for this reasons, the combination also could not render the remaining dependent claims including claims 5, 8, 12, 13, 20, 31, 38, and 39. Applicant respectfully requests withdrawal of this rejection.

Rejection Under 35 U.S.C. § 103

Claims 14, 15, and 16 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over Okase in view of Salimian. However, Salimian does not teach the above discussed features recited in claim 1 and 30. In the claimed invention, because two separate sections are established where reaction gas and purge gas can alternately be introduced in each section, atomic layer deposition can effectively be accomplished. A combination of Okase and Salimian could not lead to this feature. Thus, a combination of Okase and Salimian could not render claims 1 and 30 obvious, and at least for this reasons, the combination also could not render the remaining dependent claims including claims 14, 15, and 16. Applicant respectfully requests withdrawal of this rejection.

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CONCLUSION

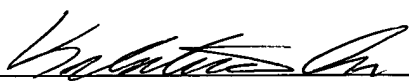
In light of the Applicant's amendments to the claims and the foregoing Remarks, it is respectfully submitted that the present application is in condition for allowance. Should the Examiner have any remaining concerns which might prevent the prompt allowance of the application, the Examiner is respectfully invited to contact the undersigned at the telephone number appearing below.

Please charge any additional fees, including any fees for additional extension of time, or credit overpayment to Deposit Account No. 11-1410.

Respectfully submitted,

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Dated: 3/13/2006

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AMENDMENTS TO THE DRAWINGS

Applicant requests to amend Figs. 4 and 9 to insert numerals 300, 301, and 302 in Fig. 4, and 300' and 301' in Fig. 9, as the claims recite these elements as noted by the Examiner. No new matter has been added. Approval of this amendment is respectfully requested. A "Replacement Sheet" for each sheet of drawings being amended can be found in the Appendix.